

EDUCATION

University College Dublin

Dublin, Ireland

Ph.D. Quantitative & Computational Social Sciences

2023–Current

- Computational narrative analysis in online media;

University of Padova

Padova, Italy

M.Sc. Data Science, GPA: 4.0/4.0

2021–2023

- Thesis: Machine learning-based image forgery detection;

Heidelberg University

Heidelberg, Germany

B.Sc. Physics, GPA: 3.3/4.0

2016–2021

- Thesis: Hydrospheric tracers in environmental physics;

EXPERIENCE

Wayfair

Berlin, Germany

Intern

Mar 23–Sep 23

Worked as a Machine Learning Scientist in the Scam and Fraud Detection Team on Image Recognition Software.

- Designed and tested image-based features for scam detection.
- Maintained model infrastructure and deployed new features to production.
- Build pipelines for model training.
- Experimented with different models.

UN Office for the Coordination of Humanitarian Affairs

South Sudan

Research Project Manager

Aug 22–Sep 22

Led data collection for the evaluation of the impact of UN support on health and food security in displacement camps.

- Led my team in conducting 4000 interviews over 9 weeks.
- Trained and supervised 15 staff and managed communication with the displaced communities.
- Ensured data quality by conducting regular quality checks and giving feedback to the enumerators.

International Security and Development Center (ISDC)

Berlin, Germany

Junior Researcher

Mar 22–Jun 22

Contributed to an impact evaluation for the FAO.

- Aggregated external data sources and matching them to a survey.
- Analysed conflict event data as well as satellite data on weather and land conditions.
- Produced graphs, maps, and tables used in the final paper.

International Security and Development Center (ISDC)

Berlin, Germany

Research Assistant

Mar 21–Jul 21

Provided statistical analysis for several projects.

- Cleaned and analysed survey data on gendered dimensions of displacement and the impact of COVID-19 around the world.
- Produced graphs and tables for the final scientific papers [1].

Institute for Peace Research and Security Policy (IFSH)

Intern

Hamburg, Germany

Jan 21–Feb 21

Simulated the emission spectrum of nuclear weapons to improve detection systems [2].

International Security and Development Center (ISDC)

Intern

Berlin, Germany

Sep 20–Dec 20

Contributed statistical analysis to different projects.

PUBLICATIONS

- [1] W. Stojetz, N. T. N. Ferguson, G. Baliki, O. Díaz, J. Elfes, D. Esenaliev, H. Freudenreich, A. Koebach, L. Abreu, L. Peitz, A. Todua, M. Schreiner, A. Hoeffler, P. Justino, and T. Brück, “The Life with Corona survey”, *Social Science & Medicine*, vol. 306, Aug. 2022.
- [2] M. Kütt, J. Elfes, and C. Fichtlscherer, “Fetter Model Revisited: Detecting Nuclear Weapons 30 Years Later”, in *Proceedings of the INMM ESARDA Joint Virtual Annual Meeting*, Aug. 2021.

PREPRINTS

1. J. Elfes, “Mapping News Narratives Using LLMs and Narrative-Structured Text Embeddings”, <https://doi.org/10.48550/arXiv.2409.06540> arXiv:2409.06540 [cs.CL]

PUBLICATIONS UNDER REVIEW

1. J. Elfes, and M. Bastos, “Upscaling the Actantial Model: A Large Language Model for Cultural Narratives”, *Theory, Culture & Society*, Under Review, Submitted in Feb. 2024.

SKILLS

- **Programming:** Python (PyTorch, TensorFlow, Scikit-learn, transformers), R, SQL, Jinja
- **Frameworks:** Linux, Git, GCP, Kubeflow

LANGUAGES

- **German:** Native
- **English:** C2
- **Italian:** C1
- **French:** A1

SCHOLARSHIPS

- **Government of Ireland Postgraduate Scholarship**, Irish Research Council
Highly competitive, individual, and prestigious awards for excellent research. Nov 23–Okt 27
- **DDSA Visit Grant**, Danish Data Science Academy Aug 24–Nov 24
- **MAECI Scholarship**, Italian Ministry of Foreign Affairs and International Cooperation Jan 23–Sep 23
- **MAECI Scholarship**, Italian Ministry of Foreign Affairs and International Cooperation Jan 22–Sep 22

INTERESTS

Theatre & Sport

I am acting and directing in theatre projects and I am a passionate climber and aerial silk acrobat.